EVERYDAY COW CARE

The care of dairy cows is an important part of successful dairy farming. Dairy farmers take excellent care of their cows, providing their animals clean and comfortable housing, fresh water, food and medical attention when necessary. Dairy farmers know that healthy, happy cows produce more high-quality milk so the animals' well-being is a farmer's top priority. Dairy cows can eat up to 100 pounds of food per day. Some dairy farmers allow their cows to graze on grass or provide them alfalfa hay, but many farmers also choose to supplement their cows' diets with mixed ration feeds including corn, soybeans, sorghum and other grains to provide additional nutrients and fiber. Many farmers employ a nutritionist who will formulate feed rations and a specific diet for cows based on their age, weight, if they’re milking or dry, or if they have any other health considerations. Water is just as important. Cows can drink as much as 50 gallons of water each day, so it is important for dairy cows to have a clean and accessible water supply.

Cows require a lot of time to rest and digest their food, so dairy farmers provide cows with a variety of bedding options. Fun fact: cows spend up to 12 hours lying down daily. Some of the products used include sawdust shavings, sand, shredded recycled tire rubber, dried manure that's been pressed and sanitized, and some barns even have waterbed-style mattresses. Keeping dairy cows cool, especially in the summertime, is important in keeping milk production up. Many farmers equip their cow barns with fans and sprinklers or mister systems. The beds and walkways are scraped for manure and flushed with water several times a day.

Source: https://gfb.ag/happycows

THE HISTORY OF GEORGIA DAIRY FARMING

The first dairy cows arrived in Georgia in the early 1700s when James Edward Oglethorpe, the founder of the colony, arrived. During the early history of Georgia, each family owned a dairy cow and if they had excess dairy products, they could sell or trade them. The dairy industry slowly grew and after the Civil War (1861-1865), the demand for dairy products grew. Cows were put into pastures and milked by hand. People cooled their milk in cans that were placed in water tanks filled with spring or well water. Dairy farmers located near towns provided milk while the dairy farmers further away from the towns produced butter. By the 1930s the dairy industry had gained success as a business enterprise in Georgia. Today dairy cows are milked by machines and human hands never touch the milk. There are 140 dairy farms producing over 1.7 billion pounds (or 206 million gallons).

Source: https://gfb.ag/h9k

FARMER DEDICATION TO SUSTAINABILITY

With a growing population, farmers must increase food production while facing a decrease in resources. Considering the nutrients milk contains, dairy has a lower carbon footprint than many other foods, and that continues to improve. Today, the carbon footprint of a glass of milk is two-thirds less than a glass of milk 70 years ago! Since 1950, US dairy herds have decreased from 25 million to 9 million dairy cows, still producing 60% more milk. Through improved genetics, reproduction practices, health practices, and diet, cows are more efficient than in 1950. The more efficient a dairy cow, the lower a cow’s emissions.

Cows are the ultimate upcyclers, eating byproducts that humans cannot eat, such as citrus pulp, almond hulls, Brewers grain and more, that reduces our food waste going into landfills. These byproducts are also beneficial to the cows, providing energy needed to more efficiently produce milk.

Dairy farming can also contribute to crop production. When growing crops, many dairy farmers reuse the waste from other practices. After cooling milk, cleaning equipment and then cleaning barns, the used water is recycled as irrigation. A benefit of raised water is that it has been enriched by the manure cleared from barns. Manure itself is also used as a natural fertilizer for crops. This nourishes the soil for future years and benefits all farmers.
Twice a day, or on some farms three times a day, the cows are brought into the parlor to be milked. Parlors can come in all shapes and sizes, depending on how many cows are in the herd and how much time the farmer wants to spend each day milking. When the cows walk into the parlor, they move into their stall and the farmer washes the udder with water or a soap solution, then dries the teats with iodine or antiseptic solution. Next milking suction tubes, also called a ‘tac’ are gently attached to the cow’s teats and the milking begins. The milk is gently sucked through a series of tubes into large, clear glass jars or in some cases, it’s sent directly into a large stainless steel holding tank.

4. MILK PICKUP AND TRANSPORT – This is one of the most important parts of the process that gets the fresh milk into stores and then into your refrigerator! That unprocessed, raw milk, is transported in large tanker trucks from the farm to processing plants. When the driver arrives at the farm, he takes a sample of the milk from the bulk tank and tests it for antibiotics. Processors will not accept any milk containing antibiotics. That’s because if there are any traces of antibiotics in the milk, they will not load that milk into their tanker to contaminate any milk they might already have in the tank.

5. MILK FROM DAIRY FARM TO THE REFRIGERATOR

Milk comes from healthy, well-fed cows. Cows eat up to 100 pounds of food and drink as much as 50 gallons of water each day.

Cows are milked 2-3 times with mechanical machines in the milking parlor. Before being milked the cow’s udder is cleaned. A cow can produce anywhere from 7 to 9 gallons of milk per day.

When cows are milked the milk is 101 degrees. Milk is quickly cooled and stored at 38-39 degrees. The milk is tested to make sure it is safe for people to drink.

Every day or two the milk is pumped into a tanker truck. Super tanker trucks can hold up to 12,000 gallons of milk! The milk is now headed to the dairy plant.

At the dairy plant, the milk is tested again to make sure it is fresh and safe. While at the plant, the milk is homogenized and pasteurized so any bacteria is killed and the milk stays fresher longer.

Georgia has 2 commercial milk processing plants: one in Atlanta and one in Lawrenceville. During this process, the milk is never touched by human hands.

6. Milk is tested once again and then stored in refrigerated rooms until it is loaded into a refrigerated truck and delivered to the store. It takes 2 days or less for milk to travel from the farm to the dairy processor and finally to you to enjoy!

DID YOU KNOW?

IT TAKES 21.2 POUNDS OF WHOLE MILK TO MAKE ONE POUND OF BUTTER.

INGREDIENTS

2/3 cups room temperature heavy whipping cream
1 cup jar with lid
2-3 marbles

DIRECTIONS

1. Pour cream into the jar, place the marbles in the jar and screw on the lid.
2. Shake jar until butter forms a soft lump, 15-20 mins.
3. Continue to shake until the buttermilk separates out of the lump and the jar contains a solid lump of butter and buttermilk.
4. Pour off the buttermilk and enjoy!

SELECT THE RIGHT ANSWER

1. What is the best known type of dairy cows?
   - A. Holstein
   - B. Ayrshire
   - C. Jersey
   - D. Brown Swiss

2. How often are cows milked per day?
   - A. 1-2
   - B. 2-3
   - C. 3-4
   - D. 5-6

3. Dairy cows can eat up to ___ pounds of food a day.
   - a. 50
   - b. 70
   - c. 90
   - d. all the above

4. Either the first dairy cows arrived in Georgia in ___
   - a. 1500s
   - b. 1700s
   - c. 1800s
   - d. 1900s

5. There are over 250 dairy farms in Georgia.
   - a. True
   - b. False

6. Milk is homogenized and pasteurized so ___ is killed.
   - a. bacteria
   - b. germs
   - c. worms
   - d. insects
HOW LONG HAVE YOU BEEN IN DAIRY FARMING?
Hillcrest Farms has been in operation by our family since 1941. I am the 4th generation.

TELL US ABOUT YOUR FARM.
Hillcrest Farms is located in the small town of Dearing, Ga. We are milking 320 cows. 285 are being milked by Voluntary Milking Systems (aka robots), the rest are heaver pregnant cows that are being milked in a milking parlor. We raise our own cows and have not bought a cow since the early 1970's. We strive for sustainability with recycling manure for fertilization and also sand to replenish bedding for the milking herd. Our freestall barn (where the milking herd lives) is a barn that keeps the herd out of the weather. This helps to cool the cows during the extensive heat here in Georgia. It keeps them out of the rain and on clean bedding. We are averaging around 95 lbs of milk per cow right now. That would be around 11 gallons of milk. The cows get an all you can eat mixed ration 24 hours a day, 7 days a week and 365 days a year. We strive to make our cows comfortable and happy. When we decided to put robots into our facility, it gave us another avenue to comfort the cows. This gives them the opportunity to be milked when they decide that they feel like milking and also receive a candy-like treat when they do decide to milk!

WHAT IS INVOLVED IN DAIRY PRODUCTION?
There are so many aspects in the production of milk. Most people think that it is just a simple act of milking the cow, when in reality you have to raise the calf to become an adult cow, feed it, keep up with the health records, and so on. Once it has become a mature adult cow it is ready for milk production. The cow's udder will go through a cleansing and stimulating process, then is wiped clean and cups are attached to collect the milk. The milk is then sent to the holding tank where it will stay at a very cold temperature (around 37 degrees F). Within the next 48 hours, it is picked up by a tanker truck and hauled to a facility to be tested and processed to make sure it is the highest quality milk for the consumer. At that point, it is bottled and sent to the shelves for the consumer to buy.

WHAT SUBJECTS IN SCHOOL HAVE HELPED YOU THE MOST AS A FARMER?
The subject that stood out the most to me was Animal Practicum at ABAC with Dr. Mary Ellen Hicks. I didn't have the ability in high school to receive any agricultural classes. When taking this class, I received hands-on training in so many different areas. We did focus more on cows because they were readily available on site to handle.

WHAT DO YOU LIKE BEST ABOUT BEING A FARMER?
Being able to provide one of the most basic human needs is an awesome start. But it's not just about that, raising livestock runs through your blood. It takes a lot of hard work and dedication. It is a lot of nights with no sleep and working from sun up to sun down majority of the time. It's pulling a calf that would have died if you hadn't stepped in and helped deliver. It is being able to work with your dad and grandfather. I wouldn't trade it for the world.

WHAT IS THE BIGGEST CHALLENGE WITH YOUR JOB?
Striking a balance between family and work is difficult. In a mixed animal practice, you spend most of the time in an office where pets are brought to you for care. We do not have a facility to treat large animals so there is a lot of time spent on the road, driving from farm to farm. Some days the day ends "on time." However, there are days that I leave before my family wakes up and return when they are in bed.

WHAT SUBJECTS IN SCHOOL HAVE HELPED YOU IN YOUR JOB?
In terms of what got me through undergraduate course work, I'd say calculus was the most formative subject for me. I was a terrible math student in high school, but when I started undergraduate school I was determined to do my best. I had a great professor that encouraged me to take calculus, which I excelled in and it was the first subject I ever developed a proficiency for. This experience ignited in me a craving to learn more and helped me to realize that I could tackle challenging material, if I worked hard.

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WHAT DO YOU LIKE BEST ABOUT YOUR JOB?
I work in a mixed animal practice daily, treating pets and large animals. The majority of the cases I see are small animals, mainly dogs and cats. We also provide services to the beef and dairy farms of Central Georgia. My patients vary from preventative care and wellness exams to internal medicine workups. I also perform soft tissue surgeries, dentistry, and reproductive management for small and large animals.

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